



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,384	03/05/2002	Jin-Gyeong Kim	INTV.008A	8452

4586 7590 11/02/2004

ROSENBERG, KLEIN & LEE  
3458 ELLICOTT CENTER DRIVE-SUITE 101  
ELLICOTT CITY, MD 21043

EXAMINER

VO, TUNG T

ART UNIT	PAPER NUMBER
----------	--------------

2613

DATE MAILED: 11/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/092,384	<b>Applicant(s)</b> KIM ET AL.	
	<b>Examiner</b> Tung T. Vo	<b>Art Unit</b> 2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/02, 09/02</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on 10/22/02, 10/07/02, 09/04/02 has been considered.

### ***Claim Objections***

2. Claims 3 and 4 are objected to because of the following informalities: First line of claim 4 or 4, "Clam 1" should be changed to "claim 1". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3 and 5-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Fuji et al. (US 5,898,695).

Re claim 1, Fuji discloses a data buffer circuit (203 of fig. 17) for a video decoder (fig. 17) comprising:

a receiver circuit (200 of fig. 17) adapted to receive a video bitstream;

a ring buffer (203 of fig. 17, e.g. RAM (203) is packet landing buffer that is described in figure 6 is a ring buffer) adapted to store the video bitstream; and

an error resilience module (205 of fig. 17, e.g. micro-processor is adapted to select and send data from the ring buffer (203 of fig. 17) to the decoder (207 of fig. 17), see also fig. 21) adapted to retrieve data from the ring buffer.

Re claim 2, Fuji further discloses wherein the receiver circuit (200 of fig. 17) comprises a wireless receiver (1 of fig. 16, e.g. a communications satellite).

Re claim 3, Fuji further discloses a log interface circuit (215 of fig. 17, e.g. error flag delay or buffer adapted to store the data logging information, col. 12, lines 12, lines 33-39, the error flag is added to the encoded bitstream to indicate whether or not an error in the encoded bistream), adapted to store data logging information in the ring buffer such that the data logging information is aligned with corresponding data from the video bitstream.

Re claims 5-6, Fuji discloses data buffer circuit for a video decoder (figure 17) comprising:

means (200 of fig. 17) for receiving a video bitstream;

means (201 of fig. 17) for inspecting the video bitstream for error;

means (203 of fig. 17) for storing the video bitstream in a ring buffer regardless of an error indication;

means (215, 217 of fig. 18, e.g. the error flag is added into encoded bitstream, wherein the error flag and encoded bitstream stored in the RAM (203 of fig. 17) instructed by the micro-processor (204)) for storing data logging information corresponding to video bitstream data in the ring buffer in an aligned manner with the corresponding video bitstream data; and

Art Unit: 2613

means (204 of fig. 17, e.g. select and send video data to the video decoder 207 of fig. 17 based on the user input (13 of fig. 16)) for automatically retrieving both a portion of the video bitstream and a corresponding portion of the data logging information from the ring buffer in response to a request for data.

Re claim 7, Fuji further discloses wirelessly receiving the video bitstream (1 of fig. 16).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4 and 8-10 rejected under 35 U.S.C. 103(a) as being unpatentable over Fuji et al. (US 5,898,695) as applied to claims 1 and 6, and further in view of Kadono (US 6,757,332 B1).

Re claims 4, 8-10, Fuji further teaches the decoder for receiving the video bitstream in an MPEG compliant decoder (207 of fig. 17, see col. 1 for MPEG specification); decoding the video bitstream (202 of fig. 17, e.g. decoding before storing the video bitstream in the ring buffer) prior to storing the video bitstream in the ring buffer, and wherein the storing of the video bitstream comprises storing the decoded form (73 of fig. 16, e.g. system decode buffer for storing the decoded bitstream, wherein the system decode buffer is a part of the RAM (7 of fig. 16, and packet landing buffer (71 of fig. 16, 203 of fig. 17) is also a part of the RAM, therefore

Art Unit: 2613

the RAM capable of storing the decoded bitstream); decoding the video bitstream after the video bitstream has been stored in the ring buffer (203, 204, and 207 of fig. 17, e.g. the video decoder (207 of fig. 17) decodes the video bitstream is read from the ring buffer (203) by the micro-processor (204) to produce a decoded bitstream).

It is noted that Fuji teaches the MPEG decoder but not a MPEG-4 decoder for decoding video object planes in the video stream as claimed.

However, Kadono teaches an MPEG-4 compliant decoder (102 of fig. 1 and fig. 5, see also col. 2) for encoding a VOP of the video stream (VOP stream) based on the error notification (304 of fig. 5). Therefore, taking the teachings of Fuji and Kadono as a whole, it would have been obvious to one of ordinary skill in the art to incorporate the MPEG-4 compliant decoder of Kadono into the video bitstream decoder (fig. 17) of Fuji for the same purpose of decoding any video encoded bitstreams. Doing so would provide degradation in picture quality due to presence of encoded of un-received picture is avoided, and the operation of a buffer memory is prevented from being impeded by unnecessary encoded data.

### *Conclusion*

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lyu (US 6,654,500 B1) discloses an MPEG video decoding system and overflow processing method thereof.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung T. Vo whose telephone number is (703) 308-5874. The examiner can normally be reached on 6:30 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris. Kelley can be reached on (703) 305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



TUNG T. VO  
PATENT EXAMINER

Tung T. Vo  
Primary Examiner  
Art Unit 2613

T.Vo